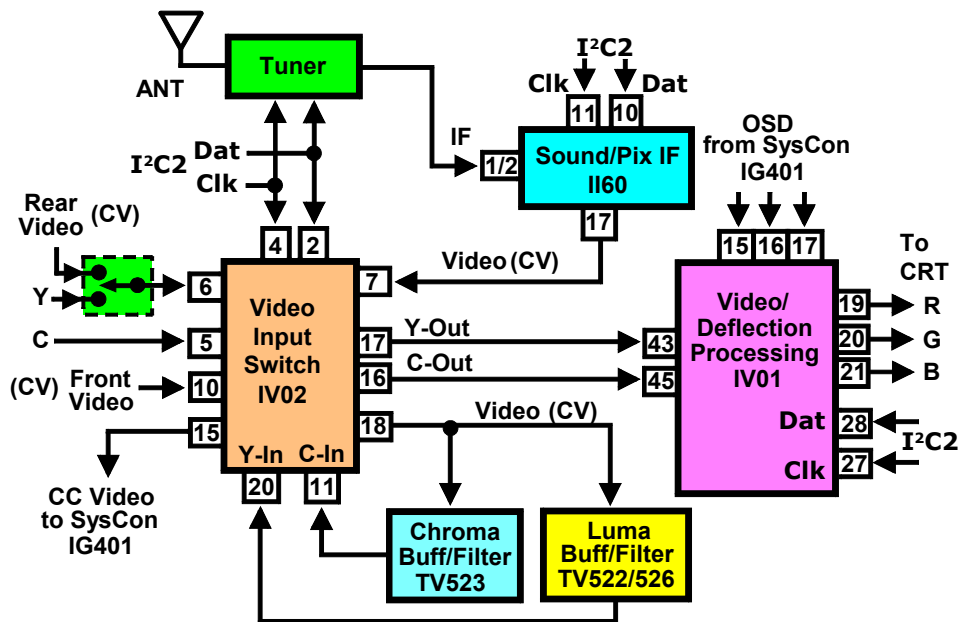




TX809 Video Switching/Processing Block Diagram

Video Switching & Processing

The Video Switching and Processing circuitry in the TX809 includes the Video Input Switch IV02, the Video/Deflection Processing IC IV01, the Sound/Pix IF IC II60 and the tuner. The video switch IV02, video/deflection IC IV01 processor and the sound/pix IC II60 are controlled via the System Control IG401. The CC Video (Closed Caption) is output from pin 15 of switch IV02 and sent to the system control (IG401) for decoding. Transistors TV522, TV523 and TV526 are used to separate the composite video signals into separate luma (Y) and chroma (C) signals. The composite video (CV) from the Sound/Pix IF (II60) and the front and rear input jacks are first routed through IV02 and output at pin 18. The composite video is applied to chroma and luma filter circuits for separation. The separated Y & C are then input back into IV01 at pins 11 and 20. The Y/C (S-Video) input is routed directly through switch IV02 for final processing. The selected video is output at pin 16 and 17 and applied to pins 43 and 45 of IV01 for final processing. All brightness, contrast, color and tint adjustments are performed by the video processor (IV01). The RGB OSD (On-Screen-Display) from the system control IG401 is also input to the video processor at pins 15, 16 & 17.

Troubleshooting

NOTE: Always use known video source such as color bars. If a video problem is suspected perform the following:

1. Confirm presence of all power supplies for circuit.
2. Check I²C2 for data & clock activity when a function is selected.
3. Check for video from II60-17 (Sound/Pix IF) during tuner operation.
4. Apply video to front/rear video inputs and check for video at IV01-18.
5. If OK, check for Y & C out of transistors TV522, TV523 & TV526.
6. If OK, check for Y & C at IV02-16/17.
7. Check for correct RGB out of IV01-19/20/21 (Video Processor).